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ABSTRACT

Basic skills programs being implemented in New Jersey colleges are examined, and the statewide need for a centralized research and training institution that would inform, train, and provide technical assistance to college and secondary school educators and administrators involved with remedial and developmental instruction is proposed. Develcpmental education at the New Brunswick campuses of Rutgers University, which include Rutgers College, Douglass College, Livingston College, Cook College and University College, is outlined. Legislative support for basic skills programs at the postsecondary level is also reviewed. It is reccmmended that a division, department, or center for developmental education be instituted at the state university. Specific recommendations are as follows: that the center become the department of associates or fellows in developmental education: that the center provide graduate training for instruction and evaluation in developmental education: that the center conduct internal and field research, and that findings are disseminated throughout the state and region: that the center provide other departments with technical assistance in the area of faculty development: and that the center sponsor school articulation programs for the purpose of alleviating basic skills deficiencies at an earlier educational level. (SW)

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THE NEED FOR A UNIVERSITY CENTER OF INSTRUCTION, RESEARCH, AND TRAINING IN DEVELOPMENTAL EDUCATION

A POSITION PAPER

SUBMITTED TO PROF. CHARLES R. DOTY

OF THE GRADUATE SCHOOL OF EDUCATION

OF

RUTGERS

THE STATE UNIVERSITY OF NEW JERSEY

BY

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DEFINITION OF TERMS

Basic Skills

As defined by the New Jersey Basic Skills Council, Basic Skills are: "the tools of intellectual discourse used in common by participating members of all academic communities. These tools are the language of words and the language of mathematics. Students need these tools to extract information, to exercise and develop the critical faculties of the mind, and to express thoughts clearly and coherently. Without them learning is impaired, communication is impercise, understanding is impossible.

Remedial Program or Course

One which attempts to correct skills deficiencies or correct academic weaknesses of students.

Developmental Program or Course

One which not only endeavors to correct academic deficiencies, but which builds upon the individual student's strengths and fosters further learning. Such a program features a holistic approach, to maintain, refine and strengthen abilities which are already present.

Developmental Education

This is the study of the theory and techniques of remediation and development of the previously unprepared learner. Developmental educators, are especially interested in the psycho/social factors as well as the cognitive factors of learning.

Developmental Student

Also known as "non-traditional" or "underprepared" is the student most served by remedial developmental programs. The term "disadvantaged" is not preferred, for depending on the context, it can mean economical or educational deprivation.

New Student

This is a new term used by researchers and developmental education to denote the different type of student now present on college campuses as the result of admissions policies of the late sixties which admitted students for the purpose of providing equal educational opportunity to populations or types of individuals underrepresented on the then traditional college campus. Such students include the minorities, the underprepared and women. An important distinction is that the new student sees college as a means to an occupation and may not pursue learning for learning sake.

LEGISLATIVE SUPPORT FOR BASIC SKILLS AT THE POSTSECONDARY LEVEL

Federal support for basic skills was a by-product of President Johnson's "War on Poverty". One program, Upward Bound, which was sponsored out of the Office of Economic Opportunity in 1964 was transferred to the Office of Education when the Higher Education Act of 1965 was enacted. The Higher Education Act of 1965 and its subsequent amendments was a major piece of legislation which has fostered many student assistance programs e.g. Financial Aid and Work Study, which are now an expected part of the college environment. Among other things, Title IV of the Act attempted to alleviate the burden of college finances for the disadvantaged (Educational Opportunity Grants); it also created programs to identify those who were academically talented (Talent Search), to counsel them and tutor them so they would enter college (Upward Bound). Therefore Public Law 89-329 authorized the Commissioner of Education to grant contracts of up to $100,000 to state, local and non-profit educational organizations to provide these services. The 1968 amendments to the Act created another program, Special Services for Disadvantaged Students which under Public Law 90-575 was to provide tutoring and counseling to disadvantaged students admitted to colleges and universities. In 1972, the 92nd Congress consolidated the authority for these programs and henceforth they have been familiarly known as TRIO projects. Since that time, the three original TRIO programs Upward Bound, Talent Search and Special Services have been expanded to six (one of which has not been implemented). Three of these programs are campus based; their missions are delineated as follows:

Special Services - Under Public Law 92-318 as amended by Public Law 94-482 provides academic advising, personal counseling, basic skills instruction and tutorial services to students with disadvantaged socio-economic backgrounds, limited English - speaking ability or physically handicaps. Its aim is to assist the student who probably would not graduate if not provided with these services.

Upward Bound - Encourages disadvantaged minority high school students to go to college. Provides remedial and college preparatory tutoring and counseling and conducts residential summer programs on college campuses.

Educational Opportunity Centers - These information and tutorial centers may be on or off-campus. They serve urban and rural areas with major concentrations or low income families. Their aim is to provide admission and financial aid information as well as tutoring and counseling to area residents.

These programs have been well supported. Their appropriations have increased from $70.3 million in fiscal year 1976 to $159.5 million in fiscal year 1980. They are presently authorized for $413 million through 1985.

Here in New Jersey there are 11 Special Services projects, 13 Upward Bound projects and 3 Talent Search projects. Postsecondary education planners must recognize the effect of these programs in stimulating college participation of the underprepared and the disadvantaged. The Research Triangle Institute in North Carolina has reported in its study that Upward Bound was responsible for 76 percent of their students entering 4 year colleges and universities as compared to a 45

percent of the control group.[1] With the prospect of these programs increasing and providing more disadvantaged youth for college admission, colleges and universities must be prepared to teach them and help students maintain their acquisition of academic skills.

In New Jersey, the Educational Opportunity Fund has been, for the past twelve years, the major vehicle for State support of basic skills instruction in postsecondary institutions. The Educational Opportunity Fund (usually referred to as EOF) was instituted in 1968 in response to searching societal questions after the riots in Newark and Plainfield.

E.O.F. was established to provide access to higher education to the economically and academically deprived. Title 9 of The New Jersey Administrative Code, Chapter II, Subchapter I describes the eligible E.O.F. student as one who "i. has not demonstrated a sufficient academic preparation to gain admission to an approved institution of higher education under its regular standards of admission; or ii. whose standardized test scores are below the institutional norms; or iii. whose educational background indicates a need for improvement of basic skills."

E.O.F. programs stress <u>student development</u> rather than only the academic development usually characterized by remedial programs.

Like the Federal programs, EOF leaders recognize that underprepared students need special personal services to help them continue in their college studies. Counseling, tutoring and advisement in financial, personal and academic matters helps this student remain in school.

On some campuses EOF personnel work closely with other developmental programs to provide well coordinated courses, laboratories and other services to assist all the underprepared students on campus. On other

campuses, the EOF program is perceived as a seperate program primarily for financial aid and counseling.

State officials are now advocating the integration of EOF's basic skill efforts with that of the host institution so that all participants, EOF or not, receive a well rounded developmental program that provides for the psychological, social/cultural and financial needs as well as the academic needs of students.

DEVELOPMENTAL EDUCATION AT THE NEW BRUNSWICK CAMPUSES OF RUTGERS UNIVERSITY

INTRODUCTION

Rutgers University was chartered as Queen's College in 1766, the eighth premier college of Colonial America. Rutgers College, as it was later named, operated as a men's liberal arts college until 1864 when, under the Morrill Act, it became a land-grant institution, adding engineering, agriculture and military science to its offerings.

In 1945 the New Jersey State Legislature designated Rutgers College and the several campuses that had developed in New Brunswick, Newark and Camden, as Rutgers - The State University. As such, Rutgers University has grown to become twenty-three undergraduate and graduate colleges. The New Brunswick undergraduate campuses, which include Rutgers College, Douglass College, Livingston College, Cook College and University College, are outlined here:

RUTGERS COLLEGE

Rutgers College, the largest college in Rutgers University as previously noted, began as a men's college. In 1972 it became coeducational, and presently offers a traditional liberal arts and sciences curriculm to over 8,000 students.

EOF students and others who may need extra academic support, may enroll in special class sections within the disciplines, special remedial courses and receive tutoring.

Eight years ago, the EOF staff formed a Committee to Improve Teaching Effectiveness". Each department proposed a special project or initiative to improve teaching and received grants from the Dean for

that purpose. Sample projects were:

"How to Read and Write History" Workshops

A Sociology clinic

A Writing laboratory

An optional Chemistry course and Chemistry

A Biology clinic and Special Biology lab section

Some of these projects still exist in modified forms in conjunction with EOF services. In addition, EOF students attend a summer academic program before their first term.

The Developmental and supportive courses presently offered are: (note: the letter 'E' indicates institutional, not degree credit).

12:350:100 Reading and Expression of Ideas	3 credits
12:350:101 Composition (Required of all freshmen)	3 credits
12:350:117 Workshop in Basic Composition 1,	1.5 or 2 credits
12:350:117 Developmental Mathematics (For freshmen with only three years of high school mathematics)	E4 credits
12:640:002 Fundamental Mathematics	E4 credits
12:640:111-112 Pre-Calculus College Mathematics (Two semester course)	2 credits
12:640:115 Preparation for Calculus	4 credits

(The latter two courses carry E credit for students with four years of high school mathematics)

12:120:099 Introduction to General Biology	E2 credits
12:160:100 Introduction to Genral Chemistry (With one year high school chemistry)	E2 credits

2 credits (With no high school chemistry) and Option for students who fail 160:103

In addition to these courses, the EOF program supports special

minicourses such as "Bibliographic Research" which is taught by a librarian for seven weeks, twice per term; academic support groups; subject tutoring; and preparation for graduate placement examinations such as the Graduate Record Examination (GRE).

EOF counselors are partially integrating into the college by working part time as advisors in the academic departments and the college admissions and financial aid offices.

DOUGLASS COLLEGE

Douglass College, the nation's largest women's college, was established in 1918 as New Jersey College for Women by the Trustees of Rutgers College. It continues as a liberal arts residential college of about 3,650 coeds; also students at other New Brunswick campuses have cross registration privileges there. Its campus contains a Women's Center and the Women's Studies Institute, a university research unit.

The Douglass College catalog notes the following supportive or developmental courses:

06:300:091	Reading Improvement I	E3 credits
06:300:093	Reading Improvement II	E3 credits
06:300:098	Study Skills (8 weeks)	E1.5 credits
06:300:257-258	Topics in Education (Reading) (requires completion of a paper)	5 credits
06:640:011	Mathematics Workshop	E3 credits
06:640:111-112	Pre-Calculus College Mathematics	E3 credits
06:350:099	Writing Center: English Skills Improvement	E3 credits
06:350:100	Writing Center: Minicourse in Writing Skills	1.5 credits
06:350:101	English Composition (Freshmen Only)	3 credits

06:120:101 An Introduction to General Biology: Special Study — 1 credit

The college uses its own placement tests to enroll students into its courses. Students must also fulfill a speech course requirement before graduation; there are plans underway to fund a Speech Institute and to include speech as a basic skill. The EOF program and the college's Writing Center provides tutoring and limited non-credit courses.

LIVINGSTON COLLEGE

Livingston College, located across the Raritan River in Piscataway Township, is a contemporary four year institution of about 3,600 students. Amid racial conflicts in the cities and cries for relevance in the college classroom, Livingston opened its doors in 1969 with the purpose of exploring solutions to urban problems and societal needs. It was among the first university campuses in the country to offer occupational studies in tandem with liberal arts.

It's Urban Studies Department is nationally renowned; its medical technology, public health, community development, and Puerto Rican Studies departments are unique and popular.

By design its student body became one of the most diversified, welcoming the non-traditional student, the older student, the working class student, and many ethnic groups. Livingston recognizes its mission to be that of a laboratory for intellectual growth and socio-cultural understanding. Further, it seeks to provide access to higher education for any student who has the ambition and desire to attend. For this reason, and partly for its dedication to innovation, Livingston has the largest organized developmental education program of all the New Brunswick campuses.

Livingston's developmental program has several components besides an EOF program: the Academic Foundations Department which sponsors developmental courses, a Learning Center, a Writing Center and a Freshman Studies Program.

The Academic Foundations Department (AFD) is a result of earlier University attempts to alleviate the problems of the underprepared. Academic Foundations departments are also operating on Newark and Camden campuses.

The Department is staffed by specialists in college level reading, study skills, writing and mathematics. Students are placed in AFD courses according to score results on the college's placement tests which are administered in addition to the New Jersey College Basic Skills Placement Test.

These courses are:

02:003:118	Fundamental Concepts in Modern Mathematics (For students with under two years of algebra)	E4 credits
02:003:119	Introduction to Applied Mathematics	E4 credits
02:003:120	Introduction to Applied Mathematics for Social or Behavioral Science Majors	E4 credits
02:003:124	Introduction Applied Mathematics: Pre-Calculus	E4 credits
02:003:135	Effective Writing	
02:350:101-102	Expository Writing (English Dept.)	4 credits
02:003:185	Analytical and Critical Reading	E4 credits

The Writing Center is a college-sponsored tutorial service for students in the developmental writing courses and other courses requiring papers.

The Learning Center is actually the Special Services Program

for Livingston College; it is also EOF funded. Students who take AFD courses are required to enroll in the appropriate laboratory in the Learning Center; other students are referred by instructors or self-referred. The Learning Center operates three laboratories: Reading/Academic Skills Laboratory, Writing Laboratory, and the Math/Science Laboratory. Each laboratory is staffed by a coordinator (faculty member), teaching assistants, graduate and undergraduate tutors. The undergraduate tutors are actually peer tutors: students who were once EOF or 'high risk students' themselves. The Center is open day and evening for subject tutoring by appointment and sponsors workshops on term paper preparation, test preparation, and 'Survival Skills'.

In addition to providing tutorial services through the Learning Center, the EOF program provides counselors who assist students with academic personal and financial aid matters.

Like the other campuses, EOF sponsors a six weeks summer program. Participants receive four credits for this summer experience, which includes remedial courses; survey/orientation courses in social sciences, business; academic/personal/social/career counseling; cultural activities and field trips.

Livingston also houses an Upward Bound Project. It sponsors a summer program for college bound urban high school students of New Brunswick, Perth Amboy and Plainfield.

This year is the first for an EOF pilot project called the Freshmen Studies Program. EOF students who are placed into developmental courses take one course from a selection recommended for freshmen, follow a pre-planned schedule, and receive special drill sessions, group tutorials and group counseling sessions. The second semester they re-

ceive less assistance and have greater freedom to make personal decisions relating to their academic growth and development. If it appears successful, and if funding is available, the program may be required of all freshmen next year.

The college also has a unique "Level III Writing Course" requirement which requires all students to take a Level III course designated in any department, as providing rigorous writing assisgnments and evaluation of those assignments to further instruct and maintain writing skills after they complete Expository Writing 101 and 102.

COOK COLLEGE

Cook College, the newest New Brunswick campus, evolved from the College of Agriculture which was established in 1921. It combines the traditional land-grant college curriculum with the modern environmental emphasis, offering programs in earth and plant sciences, and natural resources development. Facilities of the noted New Jersey Agricultural Experiment Station and the Cooperative Extension Service are features of this campus of approximately 3,000 students.

Cook College offers the following developmental skills courses:

11:350:091	Reading	1 credit
11:350:099	Composition Skills Workshop	1 credit
11:350:100	Basic Composition	E3 credits
11:350:101-102	Composition	3 credits
06:640:100	College Algebra	1 credit
06:160:100	Introduction to General Chemistry	1 credit

Based on the results of their New Jersey College Basic Skills Placement Test scores, student may be required to take any of the above mentioned courses.

UNIVERSITY COLLEGE

University College was established in 1934 as an evening college where adults could pursue the baccalaureate degree. Today University College students range in age from about 25 to 50; they are usually employed and have their own families. They have cross registration privileges with the daytime colleges.

The college's basic skills courses emphasize English and reading, however the EOF program offers additional courses and tutoring in a Learning Center. EOF counselors work alongside college counselors providing usual counseling services.

The college courses are as follows:

61:350:099	Basic Writing Skills	E3 credits
61:350:101	Expository Writing	3 credits
61:350:213	Analytical Reading	3 credits
61:640:001-002	Prep Mathematics (with less then 3 years of high school math)	E3 credits

The EOF program's courses are listed below. Typically, EOF students take one EOF course in conjunction with one or two of the college's developmental courses. These courses are taught by faculty from the Urban Education Department.

61:003:011	Reading and Study Skills	E3 credits
61:003:012	Reading in the content areas	E3 credits
61:003:013	Efficient Reading	E3 credits
61:003:014	Techniques for Library Research	E3 credits
61:003:015-106	Writing Lab	E3 credits
61:003:001-002	Individual Tutoring	E3 credits

As would be expected, the EOF summer program for University College is an evening program. Classes meet three nights per week for eight weeks, with emphasis on skills improvement.

From the above descriptions we see that the State University is trying to meet the needs of underprepared students in a number of ways. Although each model is different, most campuses operate one or more of the standard components of remedial/developmental programs: counseling, tutoring, special courses, summer orientation, and special faculty.

If each campus is servingunderprepared students--why then is there a need for a center to be established at a University level? Moreover, if Rutgers is more selective than the other public colleges, why establish an entity that will not be needed in a few years?

The answer is that without a unifying entity, there is more weakness than strength in this by-campus system. Also we cannot assume that Rutgers will not need to continue providing these services for many years. Both of these issues will be examined in the next section.

THE NEED FOR A UNIVERSITY CENTER OF INSTRUCTION RESEARCH, AND TRAINING IN DEVELOPMENTAL EDUCATION

I believe that the need for remedial and developmental education will continue at Rutgers for the next few years, and in the other state colleges, for the foreseeable future.

Most of Rutgers first time freshmen admitted in 1979 scored in the range of 400-499 on the Verbal SAT. Only 8% scored at 600 or above. (Table 1). In 1978, although Rutgers' students generally scored higher than students of other public institutions, 20 percent scored below the minimum competency standard for the elementary algebra portion of the New Jersey College Basic Skills Placement Test. (NJCBSPT) This trend persisted for all colleges. (See Table 2).

This year (1980) 27 percent of Rutgers' admitted freshmen have reported that they want to improve their study habits; 24 percent wish to improve their writing.[2] Consequently even though Rutgers students score somewhat higher on entrance tests, they still need developmental support services.

The need for basic skills instruction in pervasive. It can no longer be seen as a characteristic of the educationally deprived. One out of two high school graduates goes to college; one out of three in New Jersey. I would speculate that examination of the 11th grade test results of the State's Minimum Basic Skills Test (MBS) would show that a substantial number of students score below the minimum standard. We can get some indication by reading Table 3. This shows, for 17 urban school districts, the percentage of students scoring below the minimum standard, on the NJCBSP Test and the MBS Test in 1978. The mean percentage of students failing the Reading section of the NJCBSP Test was 61.2%; the mean

percentage was 73.89% on the elementary algebra section. When you compare this with the state average the results are more startling. When you consider the fact that since New Jersey is the most urbanized state in the nation, and that every college has an equal chance of admitting these students, these results are quite sobering.

If we look at the MBS test results of school districts in the fifteen to twenty mile radius around the New Brunswick campuses, (Middlesec and Union counties), we can see that a fair percentage of prospective applicants would need remedial and developmental services. (Tables 4 and 5).

More recently the New Jersey Basic Skills Council reported that from 1978 to 1979 there has been an increase in the number of students who lack proficiency in the basic skills: from 30-37% in verbal ability, from 45-47% in computation and from 60-61% in elementary algebra. They conclude in their December, 1979 report that "Large numbers of entering college students are not proficient in the basic skills."[3]

What student populations benefit from basic skill development? There are several:

---THE NON-TRADITIONAL OR "HIGH RISK" STUDENT - who shows promise, but has been admitted without the traditionally high SAT scores, who possibly has acceptable or marginal grades, but good references. Most funded efforts are directed toward this student.

---THE RE-ENTERING STUDENT - who took a leave of absence for personal reasons or who was officially separated from the college. This also includes the adult student who may have postponed college.

---THE TRANSFER STUDENT - who comes from another college, sometimes with limited or no previous developmental education. These include transfer from both two and four year institutions.

---THE LIMITED ENGLISH SPEAKING STUDENT - who has special needs in coping with both verbal and written English. This is the most neglected

student in basic skills programming. Community colleges have led the way in instructional techniques for college bilinqual education--techniques which should be shared. Here at Rutgers, we should have more definitive programming for these students, at all campuses.

RECOMMENDATIONS

My major recommendation is that a division, department or Center for Developmental Education be instituted at the State University. My specific recommendations are as follows:

1. That the Center becomes the department of associates or "fellows" in developmental education.

John Roueche, one of the leading observers in college remediation, and his colleague, Jerry Snow, have reported that the establishment of a division of department of developmental skills is a statistically significant factor in student success as measured by completion of a degree. They highlighted three programs which were a representative sample of the 150 four-year institutions in their study. These colleges, Kent State University, University of Texas at Austin, University of Wisconsin-Eau Claire, have sizable enrollments and operate their developmental programs as single departments comprised of specialists, counselors, and learning centers.[4]

On the matter of separate versus integrated departments, they found: "Developmental programs characterized by individual (often isolated) courses and departments spread across campus...reported low success with students. By contrast, programs organized by department or division accounted for the organizational pattern in sixty-seven percent of both senior and community colleges in the high success group. Total integrated programs yield

better results than isolated courses...colleges with programs comprised or faculty still attached to their departments, but working with counselors reported moderate success."[5]

This is not to say that individual campuses must standardize their programs, but rather that developmental instructors would belong to one department and thus share information and work toward common goals.

Such a department can also foster programming and staffing for the critical freshmen year. Special faculty is necessary for studies have shown that positive teacher-student relationships and teacher behavior are major factors in handling underprepared students. Traditional faculty tend to be reluctant to modify their behavior or methods unless they volunteer to teach developmental students. Students' fear of failure added to other factors such as low self-esteem call for special techniques which staff must be constantly reoriented to, so that students are encouraged to persist in their studies.

2. That the center provide graduate training for instruction and evaluation in developmental education.

With so many New Jersey students starting their college studies with some degree of remedial need, the present pool of developmental personnel must be better trained for the secondary as well as the postsecondary level. Developmental educators are not only four-year and two-year college instructors, they are also librarians, high school teachers, adult educators and vocational educators.

State colleges report an aggregrate of 67% of their students enrolled in reading courses, 88% in writing courses and 68% in math improvement courses.[6] Add to that the number of professionals needed at the secondary level

and one can see great need for a training program. There are not enough courses at Rutgers Graduate School of Education or any of the graduate schools of state colleges, which are specifically designed for developmental educators, and I know of no graduate degree program in this region of the country (the closest is Applachian State University in North Carolina).

Such courses should be practitioner oriented, in keeping with the statewide "Master Plan" suggestion that"...professional programs should not attempt to produce research oriented scholars, but instead to train practical professionals who apply their knowledge to society."[7] It further suggests that "Colleges whould receive support to provide in-service training for elementary and highschool teachers in basic skills instruction. Such training programs should include specific information on the most prevalent skills deficiencies found among entering college students and should provide instruction in the most promising teaching techniques."[8]

The Mathematical Association of America's Committee on Improving Remediation Efforts in the Colleges urges colleges to provide in-service courses to schools and communities andto communicate to high school students what is necessary for adequate performance in college mathematics courses.[9]

3. <u>That the center conduct internal and field research, and that findings are disseminated throughout the state and region</u>.

Developmental programs exist in all the public colleges in New Jersey, yet no effort has been made to study the teaching and learning processes of these programs as a body of knowledge.

Earlier studies (before the sixties) could rarely be generalized and usually lacked adequate control groups. Developmental research in the sixties was overly preoccupied with the Black student. Research in the seventies shifted from concern about providing access to minorities and

the disadvantaged to the quality of their education and the extent of their attrition.[10]

Present programs suffer from the lack of sophisticated research designs and qualified, experienced researchers. If the University could provide full-time researchers, and a data base, programs across the state could save thousands of dollars in consultant fees. The State's Executive EOF Director is especially interested in such a possibility.

It is my hope that through such a Center, colleges and schools can improve their methods of teaching so that ultimately we can eliminate math anxiety and other learning problems which cause women and minorities to avoid certain fields and thus be underrepresented in certain occupations. In 1978 the Department of Higher Education reported that of the Blacks and Hispanics who earned baccalaureate and higher degrees in 1975-1976, few earned degrees in architecture (or environmental design), biological sciences, engineering, and health professions including dentistry.[11] Improved teaching and learning methods coupled with better recruitment, would hopefully, alter this situation.

Here at Rutgers we have a diversity of programs, each reflecting the needs and populations of its campus. A 1979 Report on the "Character and Effectiveness of Remedial Programs at Rutgers" notes that decentralization has affected the diffusion of information. For example, some programs' evaluation methods are more comprehensive than others; some programs do more extensive studies than others. There are no conclusive studies that one programmatic format is more effective than others, only studies on specific courses or short-lived pilot projects.

I found three studies which were probably not known about on other campuses:

During academic year 1977, developmental faculty at Douglass College

compared grade point averages of students before and after a Reading Improvement course. Students in the control group were randomly chosen from a pool of students who were placed in the course, but could not take it because there were not enough faculty. The following table shows that both groups were about the same before the course was taken, but the experimental group did better after taking the course in the spring.

Mean Grade Point Average

	Fall 1977	Spring 1978
Experimental Group	3.91	3.04
Control Group	4.00	3.88

Note: A=1.00

Rutgers College reported that for academic year 1979 students completing developmental courses appear to have similar G.P.A.'s as regularly admitted students. (See Chart) This resulted, despite the difference of a mean combined SAT score of 750 compared to a mean score of 1025 for regular admits. Livingston College also reported percentile gains on standardized post tests after students completed a reading comprehension course.

Rutgers College Spring Term Averages
EOF 1980

A to B 4.0 -3.2	B to C 3.1-1.75	C-to D- 1.75-1.0	F 0.9	Totals
15%	61%	17%	7%	100%
(N= 55)	(N=222)	(N=62)	(N=24)	(N=363)

Source: 1979-1980 Annual Report

Are these programs successful? Meaningful? What is success? Were these results due to a given course, or were other factors involved? A research center could answer these questions for basic skills projects

across the state.

4. That the Center provide other departments with technical assistance in the area of faculty development.

The State's Executive EOF Director notes that the presence of a center for developmental learning"...can assist in lessening the stigma associated with developmental learning and EOF programs."[12] This is especially true when faculty view developmental educators as experts in the discipline of Leaning, and when all faculty see teaching as an art ratner than just a job.

The presence of an integrated developmental skills program usually makes all faculty more aware of effective and ineffective teaching methods; as faculty of the Freshmen Studies Program at Livingston College have found, the result is usually an increase in the level of learning for all students. Traditional faculty lose some of the sterotypes they have about developmental skills students and developmental courses. The Mathematical Association of America reports that:

> Individual faculty members report that they can realistically set higher goals for this audience than they first thought, that they have learned a great deal about the teaching of elementary mathematics from their involvement with remedial students and that is some cases the devlopment of remedial courses has resulted in the modification and improvement of other undergraduate courses.[13]

Traditional faculty may be suprised to know that human involvement is the key to success or failure with the New Student. Roueche and Mink found a significant relationship between the amount of time instructors spend early in the semester to the amount of content students are able to learn by the end of the semester.[14] Centra and Rock found that even at small colleges, "Students learn more than might be expected if they feel that instructors are easily accessible, interested in teaching and interested in students as individuals."[15]

Since developmental educators are primarily concerned with student

learning, they should share their insights with their colleagues in the other disciplines, thus closing the gap traditionally felt between "traditional faculty" and developmental educators. Such a center, staffed with educational psychologists, urban scientists, psychometricians and others as well as developmental specialists could give new meaning to interdisciplinary studies.

5. That the Center sponsor school articulation programs for the purpose of alleviating basic skills deficiencies at an earlier educational level.

Further, it has been suggested by both the Statewide Master Plan and the EOF Master Plan that EOF and campus based Trio programs, especially Upward Bound, should coordinate efforts to inform and instruct college bound high school students.

The Fund for the Improvement of Postsecondary Education (FIPSE) would be an excellent source of funding for this and other projects of this Center for Developmental Education.Under Title III, Section 404 of the General Education Provisions Act, under the Education Amendments of 1972, FIPSE funds concerns which involve risk-taking, innovation, and cost-benefits. Its mandate also allows the rewarding of contracts for "The creation of new institutions and programs for examining and awarding credentials to individuals, and the introduction of reforms in current institutional practices thereto."

THE FUTURE

Although New Jersey's state colleges and the State University are going through a period of tightening standards, it may take several years for colleges to begin to see a differenct type of applicant.

I submit that the underprepared will be with us for a long time. The majority of students will become New Students in that they will see college as a means to an occupation and not just a rite of passage or for the special recognition of a degree. With educators and parents questioning the validity of standardized tests and with the predicted decline in enrollments by the mid 1980's, overly selective colleges would in effect be closing their doors to the bulk of the population and to their dollars.

A Department of Higher Education study of employment demands indicates that demand for the college trained will not decline, even though enrollments will decline. The study notes that the U.S. Bureau of Labor Statistics projects that the demand for professional and technical workers will grow fifty percent faster than for other types of workers, and this percentage will also prevail in New Jersey.

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Higher Education planners cannot ignore the implications of these findings. We must stop training masses and begin to train individuals. We have succeeded in making college seem worthwhile; to make it matter, it must also be a successful experience, especially to the citizens who support it. Effective developmental programs can help individuals be successful college students despite their SAT scores.

Hopefully, through the activities of the proposed Center, developmental programs would become so standardized that the freshmen year experience would be identical <u>in effect</u>, on almost every campus in the state. The Full-Faith in Credit Policy would be easy to maintain and developmental education would be seen as a discipline having an integral role in the teaching philosophy of higher education.

NOTES

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TABLES

Table I

Percentage Distribution of Full-Time First-Time Freshmen by SAT Scores and Sector: 1975 to 1979

SAT Score[1]	STATE COLLEGES					RUTGERS UNIVERSITY[2]					NEW JERSEY INSTITUTE OF TECHNOLOGY					FOUR-YEAR INDEPENDENT COLLEGES[3]					TOTAL				
	1975	1976	1977	1978	1979	1975	1976	1977	1978	1979	1975	1976	1977	1978	1979	1975	1976	1977	1978	1979	1975	1976	1977	1978	1979
Verbal																									
600 or Above	2.2	3.4	2.3	2.1	1.8	9.5	11.0	9.4	7.3	7.9	4.5	5.1	4.3	4.2	3.2	15.3	15.1	14.9	14.1	14.0	8.0	9.5	8.3	7.4	7.5
500-599	13.6	17.4	14.5	14.1	13.3	30.6	31.0	30.0	27.7	27.9	21.7	22.2	21.8	18.4	23.7	22.2	20.9	21.2	20.0	18.4	20.6	22.1	21.0	20.0	19.5
400-499	42.0	42.8	42.9	39.8	41.6	36.6	36.5	37.2	41.3	41.6	47.7	39.6	42.6	38.0	47.2	37.4	35.4	37.2	35.0	35.1	39.5	38.6	39.5	38.7	39.6
200-399	42.3	36.4	40.3	43.9	43.3	23.2	21.5	23.4	23.7	22.6	26.1	33.2	31.3	39.5	25.9	25.2	28.6	26.6	30.9	32.6	32.0	29.9	31.2	33.9	33.4
Unknown	13.0	10.6	11.6	9.1	15.4	10.6	17.9	15.8	3.3	4.0	1.2	2.7	1.9	2.4	1.4	12.4	16.6	9.4	8.8	8.9	11.9	14.4	11.9	7.2	9.9
TOTAL	11,312	8,520	9,839	9,695	9,803	6,316	6,110	7,050	7,090	6,946	745	626	644	680	655	7,785	8,731	7,829	8,160	8,294	26,158	23,987	25,362	25,625	25,698
Math																									
600 or Above	4.4	5.4	4.6	4.2	4.4	20.3	24.1	22.2	17.4	20.3	29.2	28.0	27.8	22.7	27.7	22.9	22.9	22.3	21.8	20.5	14.6	16.9	15.5	14.1	14.9
500-599	23.2	26.6	23.2	20.9	22.1	37.0	37.5	36.6	36.2	37.1	45.8	45.1	46.7	45.3	53.7	27.7	26.6	27.1	25.1	24.7	28.6	29.8	28.7	27.3	28.1
400-499	38.0	36.1	38.6	39.1	40.2	28.0	24.8	24.7	29.6	27.7	20.7	18.8	18.4	25.5	13.8	31.1	29.2	29.0	29.9	30.6	32.9	31.1	31.3	33.1	32.7
200-399	34.4	29.9	33.6	35.8	33.4	14.8	13.6	16.5	16.8	14.9	4.3	8.2	7.1	6.5	5.3	18.3	21.3	21.6	23.2	24.2	23.9	22.2	24.5	25.5	24.3
Unknown	13.0	10.6	11.5	9.0	15.2	10.6	17.9	15.8	3.3	4.0	1.2	2.9	1.9	2.4	1.4	11.7	16.3	9.2	8.8	8.8	11.7	14.3	11.7	7.2	9.8
TOTAL	11,312	8,520	9,839	9,695	9,803	6,316	6,110	7,050	7,090	6,946	745	626	644	680	655	7,786	8,731	7,829	8,160	8,294	26,159	23,987	25,362	25,625	25,698

[1] Percentages calculated after eliminating unknowns.
[2] Does not include Mason Gross
[3] Does not include Beth Medrash, Bloomfield, and Rabbinical Colleges
Source: N.J. HEGIS Forms #20475, #20476, #20477, #20478, and #20479.

Table 2

1978 NEW JERSEY COLLEGE BASIC SKILLS TEST RESULTS:
PERCENTAGE OF STUDENTS SCORING BELOW THE MINIMUM COMPENTENCY STANDARD

Skill Measured	State Average	County Colleges	State Colleges	Rutgers University
Reading Comprehension	39	48	34	17
Sentence Structure	41	53	33	18
Logical Relationships	39	49	33	17
Composition	43	55	36	18
Total English	42	54	35	17
Computation	45	58	38	17
Elementary Algebra	57	74	47	20

Source: Report to the Board of Higher Education on the Results of the New Jersey College Basic Skills Placement Testing, May 1, 1978 - September 28, 1979. New Jersey Basic Skills Council. November 17, 1978.

Table 4

MIDDLESEX COUNTY SCHOOL DISTRICTS RANKED BY THE ESTIMATED PERCENTAGE OF STUDENTS BELOW THE STATEWIDE MINIMUM STANDARD

District	Rank	Percent Below Minimum Standard
Helmetta	1	6.92
Cranbury	2	17.34
Milltown	3	17.35
Sayreville	4	17.47
East Brunswick	5	17.58
North Brunswick	6	18.79
Monroe	7	18.96
Highland Park	8	19.62
Metuchen	9	19.96
Old Bridge	10	20.50
South Brunswick	11	21.69
Edison	12	22.50
Carteret	13	22.70
Dunellen	14	23.05
Woodbridge	15	23.17
South River	16	23.70
South Plainfield	17	24.26
COUNTY AVERAGE	-	24.80
Piscataway	18	24.93
Middlesex	19	25.36
STATE AVERAGE	-	28.94
Spotswood	20	29.39
South Amboy	21	33.30
Perth Amboy	22	47.37
Jamesburg	23	47.87
New Brunswick	24	56.38

Source: New Jersey Department of Education. State Compensatory Education District Eligibility Levels, 1978-79 (Printouts.)

Table 5

UNION COUNTY SCHOOL DISTRICTS RANKED BY THE ESTIMATED PERCENTAGE OF STUDENTS BELOW THE STATEWIDE MINIMUM STANDARD

District	Rank	Percent Below Minimum Standard
Berkeley Heights	1	10.50
New Providence	2	10.96
Westfield	3	12.80
Winfield	4	12.83
Union Cty. Regional	5	13.90
Summit	6	14.78
Cranford	7	15.47
Mountainside	8	16.15
Clark	9	16.95
Scoth Plains/Fanwood	10	17.41
Springfield	11	17.73
Union	12	18.10
Roselle Park	13	18.41
Kenilworth	14	21.27
Garwood	15	22.07
COUNTY AVERAGE	-	26.41
Hillside	16	27.85
STATE AVERAGE	-	28.94
Linden	17	31.19
Rahway	18	32.10
Roselle	19	37.52
Elizabeth	20	41.39
Plainfield	21	49.40

Source: New Jersey Department of Education. State Compensatory Education Printouts (District Eligibility Levels) 1978-79.